

# Are you in or are you out?

How the relevance of an organization's social initiatives to its day-to-day operations impacts financial performance.

By  
Whitney Shapiro

## Abstract

For-profit firms in society today are becoming increasingly expected to “give back” to the community through some sort of social initiative. In the past, it was hotly debated whether these societal expectations resulted in any sort of fiscal benefit. Now it is commonly agreed that there is financial benefit to conducting social initiatives, but there is no clarity around how the relationship of an organization's social initiatives to its day-to-day operations impacts financial performance. This study examines the effect of social initiatives that are core to an organization's everyday functions, and those that are peripheral to everyday functions, on financial performance. Additionally, this study examines the relationship between concerning core and peripheral social behavior on financial performance. Through two-sample t-tests and panel regression analysis, I determined that within a firm, peripheral social initiatives have a negative relationship with financial performance, while core initiatives and both types of concerning social behavior have no relationship. Between firms, core initiatives have a positive relationship with financial performance while concerning peripheral behavior has a negative correlation. This indicates that it may be fiscally beneficial to partake in social initiatives core to the everyday functioning of an organization and focus on reducing concerning peripheral behavior.

Keywords: Corporate social responsibility, firm performance, social initiatives, social impact

Submitted under the faculty supervision of Professor Aseem Kaul, in partial fulfillment of the requirements of the Bachelor of Science in Business degree, *summa cum laude*, Carlson School of Management, University of Minnesota, Spring 2017.

## **1. Introduction**

The United States ranks second in the World Giving Index for 2015 out of 145 countries measured on the attributes of three giving behaviors: helping a stranger, volunteering time, and donating money (CAF, 2015) . Following this trend, socially responsible practices are becoming increasingly expected in the U.S. business world today. Though these practices are expected, it is often debated whether these practices should be considered core to an organization's operations and success or simply public relations efforts that distract from core activities. Core activities for this work will be defined as those that are directly related to the day-to-day functioning and existing expertise of a company. Peripheral activities are those that are not directly related to a firm's regular activities and external to day-to-day functions.

Understanding the effectiveness of core and peripheral activities on financial performance is very important today as socially responsible practices are becoming an expected behavior for all companies. Firms need to know how to best allocate their resources to benefit society with social activities, but also benefit themselves. The financial effects of core and peripheral activities should be determined to establish what types of activities for-profit organizations should invest their time in. This research aims to determine if core activities result in a higher financial gain for for-profit organizations. Beyond behaving well, this research will also consider the effects of socially irresponsible behavior, which will be referred to as concerning behavior, on financial performance to see if organizations need to be mindful of social initiatives and concerning behavior in achieving financial goals. This will be done by researching financial performance trends over the last five years, the types of social initiatives, core versus peripheral, organizations implement, and the types of concerning behavior organizations partake in. The relationships will be modeled in a series of panel regressions to

determine the relationship between the variable types. Panel regressions will be used because data on financial performance of an organization that is multi-dimensional and involves measurements from the same organization over time is panel data. Additionally, this regression can analyze effects of independent variables using fixed effects and between effects. The fixed effects model estimates correlations using the time-series information in the data, examining how the change in types of social initiatives within a firm impacts its financial performance over time. The between effects model estimates correlations using the cross-sectional information in the data, examining the effect of changes in social initiative type on performance between firms.

This information will be beneficial to for-profit organizations as they strive to transform with societal trends and add value to their companies. There has been a large amount of research done on whether participating in corporate social responsibility is financially beneficial for firms, but there is a lack of research regarding the effect of specific types of initiatives, such as core and peripheral. For-profit organizations and society as a whole stand to be affected by this research as a better understanding of social initiatives can increase the financial performance of firms as well as the positive benefit on society.

## **2. Literature Review**

Corporate social responsibility has become an unspoken expectation for firms in the marketplace today, and there have been many questions about whether this practice is actually beneficial for companies. Literature exists that answers this question, and other literature addresses unintended results of corporate social responsibility. Very little literature exists, though, that specifies if social initiatives at the core of an organization's functioning are more beneficial than social initiatives on the periphery. A review of the literature helps to understand

what is known about corporate social responsibility, its effect on firm performance, and what literary gap still needs to be filled.

### **Social initiatives and firm performance**

There is a substantial amount of literature regarding the benefit of social initiatives on firm performance. In general, it was found that firms partaking in social initiatives do in fact experience an increase in firm performance as measured by return on equity and return on assets over a ten-year period (Sledge, 2015). One study examined five different types of social initiatives (strategic, human resource, environmental, governance, and community based) and found that all positively impacted firm performance except community based initiatives (Sledge, 2015).

Another study found that social initiatives are capabilities that can be used strategically to provide a competitive advantage for firms (Hart, 1995). The focus of this study was to assess the value of three types of social initiatives that would be relevant because the changing natural environment is likely to constrain business operations in the future. The three initiatives studied of pollution prevention, product stewardship, and sustainable development were all found to foster competitive advantage in some way. The advantages were lower costs, the ability to preempt competitors, and future positioning, respectively (Hart, 1995). Each of these competitive advantages has the potential to improve firm financial performance, and the types of initiatives being examined match with my definition of core activities which suggests some possible benefits of core social initiatives.

Flammer (2015) also examined the financial benefit of social responsibility, and did so by examining close call CSR initiatives (those that passed with close to 50% majority vote) as a

means of creating random variation that would be used to estimate the causal effect, if any, of CSR on financial performance. This study is particularly interesting because it addresses a concern that a lot of the existing literature does not combat, which is the possibility that strong financial performance is the cause of CSR and not the other way around. Findings showed that CSR approvals lead to a shareholder value increase of ~1.77% (Flammer, 2015). Additionally, this study had findings that suggested CSR might have decreasing marginal returns, as organizations that had minimal CSR to start with saw larger financial returns than organizations that had approved a CSR initiative while already having an extensive history of involvement in CSR. Flammer (2015) adds another perspective supporting the idea that CSR has a positive relationship with firm performance, and an interesting finding that CSR initiatives could have decreasing marginal returns.

An additional look at the impacts and relationship of CSR on financial performance is presented by Barnett and Salomon (2006). In their study, the performance of 61 socially responsible investment portfolios (SRIs) was examined and it determined “social responsibility is not merely a cost, but a wise investment.” (p. 6). Barnett and Salomon (2006) found a curvilinear relationship between social and financial performance. The organizations with the highest and lowest levels of social responsibility were the ones experiencing the strongest financial returns, and the lowest returns were for organizations with a moderate level of social responsibility. This finding gives further support to Flammer’s study which discussed the decreasing marginal return of social responsibility. Though these studies do not share the same results, they both show that the magnitude of financial return can vary by organization based on their prior involvement with social initiatives. Additionally, this study proposes the idea that addressing different types of issues might yield different returns (Barnett & Salomon, 2006). The

specific hypothesis was that SRI funds that select firms based on strong labor relations will see higher financial returns which is interesting because it is one of few studies that tests a specific type of social initiative.

The magnitude of firms' social initiatives has also been taken into account in the literature to understand their effect on firm performance. When a firm has an abnormally high or abnormally low measure of social performance it has a larger increase in firm performance (Brammer & Millington, 2008). Firms with particularly low social performance only experience higher firm performance in the short term, and firms with higher social performance experience higher financial performance in the long term. The existing literature makes it clear that partaking in social initiatives results in financial benefit for firms, but there is no understanding of what a firm's relation to the social initiative will do to firm performance. This means that it is yet to be determined whether social initiatives that are core or peripheral to a firm have a greater effect on financial performance.

There is one key piece of literature existing today that looks at social responsibility as core and peripheral. This article by Porter and Kramer (2011), however, theorizes the benefits of core initiatives over peripheral instead of running a study to determine whether this is true in practice. In theory, Porter and Kramer (2011) explain that social harms can result in internal costs for firms such as costly accidents, raw materials, or wasted energy. In order to offset these costs, an organization can address societal harms through innovation in management approaches, technologies, or operating methods – activities that are core to an organization's day-to-day activities. Addressing social harms with innovative core changes can then increase a company's productivity and expand their markets which offer the potential to increase financial return.

The literature does not typically evaluate which types of initiatives are more effective than others at increasing performance. In the few papers that do address the type of social initiative as a variable, the type is not distinguished as core or peripheral to the organization, but it is distinguished by theme such as environmental or community based.

### **The unintended results of social initiatives**

Though the idea that organizations partaking in social initiatives have increased financial performance is well-researched and supported, there are also unintended results of social initiatives that have the possibility of taking place. A study by Sasse and Trahan (2007) found that there are three significant unintended results of CSR: inefficient use of corporate resources, charity at the mercy of the market, and tradeoffs that occur because a company's public and private roles are blurred. It is important to understand these unintended results so organizations can develop strategies to avoid them.

The first of the three unintended results of CSR is inefficient use of corporate resources. It has been asserted by Sasse and Trahan (2007) that corporations are unfamiliar with products and services that are not integral to their business, and social decisions do not fall within the realm of publicly traded companies, so they will misuse resources. The second unintended result of having charity affected by the market is a concern because if a corporation begins to fail, its charitable programs will be one of the first to go considering they are not related to profit interests for the firm in the long term (Sasse & Trahan, 2007). The last unintended result of making tradeoffs is an issue because there is a question as to who should be making decisions regarding where corporate philanthropy money goes. Sasse and Trahan (2007) even argue that

“Once an organization is no longer focused on profits, every stakeholder will have justified cause to demand their interests be met” (p. 36).

The unintended results of CSR as explained by Sasse and Trahan have the potential to negatively impact financial performance increases that are typically accompanied by social initiatives and beg the question of how they can be eliminated. It is possible that social initiatives at the core of an organization can avoid the misuse of resources because of unfamiliarity and the potential tradeoffs from the question of who makes philanthropic decisions. This can be thought because core initiatives would involve activities already familiar to the business, and there would be no question as to who makes philanthropic decisions considering social initiatives would be engrained in everyday activities. With the potential for core initiatives to reduce unintended effects compared to peripheral activities, there should be research to determine if this is true. This paper will contribute to this need by researching how core and peripheral initiatives affect financial performance, which could be an outcome of these unintended effects.

Furthering the argument that social initiatives can force the issue of tradeoffs, Friedman (1970) argues that the responsibility of a business is to improve profits because any other action by a corporate executive would be viewed as unethical. Taking earnings gained by a corporation and selecting social initiatives to spend it on can be seen as taxation without representation because each stockholder does not get a say in where the dollars are spent. Friedman (1970) proposes individuals that are not acting as the agent of the stockholders should be the ones responsible for spending their dollars on social initiatives as they see fit, and that it is not the obligation of a company to practice socially responsible behavior beyond following the basic rules of society. This viewpoint asserts the idea that corporations putting resources toward social good, such as spending on efforts to reduce pollution beyond what is required by law, are



sacrificing corporate profits. This would be an unintended result of social initiatives that needs to be taken into consideration, and can possibly be resolved with core initiatives that are built into the business model so consumers know what they are putting their money toward instead of giving executives the freedom to allocate as desired each year.

## **Summary**

Existing literature shows that firms conducting social initiatives will very likely see an increase in firm performance, but there are also unintended results that stem from the type of social initiative used by a firm. It seems as though all of the unintended results can be avoided by developing social initiatives that are core to a corporation's functioning because this would eliminate unfamiliarity with activities, being at the hands of the market, and making tradeoffs since the activities would not be peripheral to the profit-making goal. With that in mind, as well as the fact that the existing literature does not cover the impact on firm performance when social initiatives are peripheral or core to an organization, there is a clear opportunity to research this relationship and find the most effective way to satisfy the societal expectation of corporate giving. This paper will provide information to minimize this literature gap by analyzing the effects of both core and peripheral social initiatives on the financial performance of public companies in various industries.

## **3. Methodology**

This study assesses the relationship between the types of social initiatives organizations choose to partake in and the financial performance of those organizations. A series of fixed effects and between effects panel data regressions were run using data from Wharton Research

Data Services' KLD Index for social responsibility measures and COMPUSTAT for organizational financial information.

### **3.1 Hypothesis Statements**

In order to determine the relationship between core and peripheral social initiatives and firm performance the following hypotheses were tested:

*H1: Corporate social initiatives at the core of an organization's activities result in a larger increase in financial performance for firms than activities on the periphery.*

The literature suggests core initiatives can be of strong benefit to organizations, and peripheral initiatives are more likely to have negative unintended consequences which leads me to believe this hypothesis to be true.

There has been research done that states corporate social responsibility can be more of a burden than a benefit depending on how it is handled, and the ideal way to manage it suggests that creating social initiatives at the core of an organization's activities would be more effective for firms (Sasse & Trahan, 2007). The effect that the type of social initiative has on an organization's financial performance has not been as thoroughly studied, but there have been many studies arguing about the overall benefit of peripheral social initiatives. Many of the reasons that the literature speaks down upon the effectiveness of peripheral initiatives can be fixed with a core initiative approach instead (Sasse & Trahan, 2007).

Porter and Kramer (2011) support this hypothesis with their argument that social harms have the potential to hinder firm performance, so addressing these harms in innovative ways that are central to an organization's functioning can be beneficial. This behavior can increase company

productivity and expand markets which means core activities have the potential to yield higher financial return. Hart (1995) and Barnett and Salomon (2006) provide further research to suggest this hypothesis is true. One study considered the idea that an initiative related to labor relations would yield higher financial return than other types of initiatives (Barnett & Salomon, 2006). Hart (1995) looked at the competitive advantage of specific types of environmental initiatives, finding that all three initiatives increased competitive advantage and put organizations in a better position to increase financial returns. The types of initiatives examined in both studies would be classified as core under my definition of core activities, which supports the proposed hypothesis.

*H2: An increase in concerning peripheral behavior will result in a larger decrease in financial performance than an increase in concerning core behavior.*

Looking beyond positive social behavior, organizations also display a lack of social responsibility in their operations. When considering the impact of social initiatives on financial performance, it is also important to look at the impact of behaving socially irresponsibly. Scholtens (2007) examines what comes first, improved financial performance or improved social initiatives and in this examination, he considers the impact of concerning social behavior on financial performance. Though his work does not classify concerning behavior as core or peripheral, his findings can be used as an indicator for what is likely to happen when behavior is classified as such. This research conducted an OLS analysis with distributed lags and found that certain types of concerning behavior, categorized using the KLD Index, had more significant relationships with financial risk than others. Concerning behaviors that I have classified as core have lower percent significant relations with financial risk than those I have classified as

peripheral. This suggests that an increase in concerning peripheral activities would result in a larger decrease in financial performance than an increase in concerning core activities.

Additionally, Sasse and Trahan (2011) and Friedman (1970) discuss tradeoffs of social behaviors that support this hypothesis. In these studies, there is discussion about activities that I define as peripheral to an organization's functioning resulting in tradeoffs that can decrease financial performance. This is because they are seen as a misuse of shareholder dollars and distracting from profit generation. Looking at concerning behaviors, these points suggest peripheral behaviors will have a more largely negative impact on financial performance because it involves misusing shareholder dollars in a negative way. Peripheral activities tend to be more publicized and consumer-facing, so I hypothesize that concerning behavior in this category would receive more negative backlash.

### 3.2 Measures/Variables

The dependent variable in both hypotheses is the financial value of a given firm, which is measured using three financial metrics – Return on Equity ( $\frac{Net\ Income}{Shareholder's\ Equity}$ ), Return on Assets ( $\frac{Net\ Income}{Total\ Assets}$ ), and Tobin's Q, ( $\frac{Equity\ Market\ Value + Liabilities\ Market\ Value}{Equity\ Book\ Value + Liabilities\ Book\ Value}$ ) which are widely accepted measures to evaluate firm value in economic, accounting, and financial studies. The quantitative information needed to calculate these metrics was taken from COMPUSTAT.

The independent variable of social initiative/concern type (core or peripheral) was determined by looking at which assessment criteria are met, for each organization, with regard to positive and negative performance indicators within the KLD index (a measure of social responsibility). Each of the performance indicators were classified as indicators of core

or peripheral activities based on their relevance to daily operating activities of an organization; the classification of activities can be viewed in Appendix 1. For each firm, the total number of positive (strengths) and negative (concerns) core performance indicators, and the total number of peripheral strengths and concerns, were determined to be used as data points in the regression. Core organizations were classified as those that partake in more positive core initiatives than peripheral, and peripheral organizations were the opposite.

An example of a KLD performance indicator that classified an organization as core would be “product,” which assesses how a product is intentionally created to be safe for users and the community. Actions to do this would be directly related to day-to-day functions of manufacturing and distributing the product. A peripheral example of a KLD performance indicator would be “community,” which assesses which organizations engage with the local community. Engaging with the local community is an action ancillary and unrelated to day-to-day operating activities. This information was gathered from Wharton Research Data Services.

### **3.3 Sample Selection**

The sample of firms used for analysis included all domestic, public firms that had sufficient data available on both the COMPUSTAT dataset and the WRDS KLD index dataset. This resulted in a sample size of 2,334 organizations over a five-year period (2010 – 2015). Some organizations did not have data for all five years, so this resulted in a total of 9,066 observations for regressions with ROA and Tobin’s Q as the dependent variable, and 9,065 observations for regressions with ROE as the dependent variable.

### 3.4 Analysis

A quantitative analysis was used to evaluate my hypotheses. For hypothesis one, secondary data was analyzed using a two-sample t-test where  $\mu$  represents average firm value as ROE, ROA, and Tobin's Q.

$$H_0: \mu_{core} \leq \mu_{peripheral}$$

$$H_1: \mu_{core} > \mu_{peripheral}$$

A result showing that  $\mu_{core}$  is significantly greater than  $\mu_{peripheral}$  would mean that average firm value for organizations practicing more core initiatives is higher than that of firms practicing more peripheral initiatives.

Hypothesis one will also be evaluated using a panel data regression model with fixed and between effects to show the effects of core and peripheral strengths on financial performance within a firm, and across firms. This regression includes four control variables: revenues, number of employees, long-term debt / total assets, and advertising spend / revenues. For these regressions, a forward lag was also built in to account for the prior year's social initiative involvement when analyzing the current year's financial performance. Below is the regression equation for my model by dependent variable:

$$H_0: \beta_1 \leq \beta_2$$

$$H_1: \beta_1 > \beta_2$$

$$ROE_{it+1} =$$

$$\begin{aligned} & \alpha + \beta_1 CoreStrengths_{it} + \beta_2 PeripheralStrengths_{it} + \beta_3 Revenue_{it} \\ & + \beta_4 Employees_{it} + \beta_5 \left( \frac{LTDebt}{Assets} \right)_{it} + \beta_6 AdSpend_{it} + \beta_7 ROE_{it} + \gamma_i + \delta_t \\ & + \varepsilon \end{aligned}$$

$$ROA_{it+1} =$$

$$\begin{aligned} & \alpha + \beta_1 CoreStrengths_{it} + \beta_2 PeripheralStrengths_{it} + \beta_3 Revenue_{it} \\ & + \beta_4 Employees_{it} + \beta_5 \left( \frac{LTDebt}{Assets} \right)_{it} + \beta_6 AdSpend_{it} + \beta_7 ROA_{it} + \gamma_i + \delta_t \\ & + \varepsilon \end{aligned}$$

$$Tobin's Q_{it+1} =$$

$$\begin{aligned} & \alpha + \beta_1 CoreStrengths_{it} + \beta_2 PeripheralStrengths_{it} + \beta_3 Revenue_{it} \\ & + \beta_4 Employees_{it} + \beta_5 \left( \frac{LTDebt}{Assets} \right)_{it} + \beta_6 AdSpend_{it} + \beta_7 Tobin's Q_{it} + \gamma_i \\ & + \delta_t + \varepsilon \end{aligned}$$

- **Core Strengths** – The total number of core strengths attributed to an organization based on the KLD Index and Core/Peripheral distinction explained in Appendix 1.
- **Peripheral Strengths** – The total number of peripheral strengths attributed to an organization based on the KLD Index and Core/Peripheral distinction explained in Appendix 1.
- **Revenue** – Annual revenue generated, in dollars.
- **Employees** – The number of people employed by an organization.
- **LT Debt / Assets** – The total amount of annual long-term debt an organization has divided by its annual total assets.
- **AdSpend** – The total amount of annual advertising spend by an organization divided by annual revenues.

If my hypothesis is supported, results will show that  $\beta_1$  is significantly larger from  $\beta_2$  which would mean that core initiatives are more highly correlated with improved financial performance than peripheral initiatives.

For hypothesis two, the same panel data regression model was run with core and peripheral concerns as the independent variables. Below is the regression equation for my model by dependent variable:

$$H_0: \beta_1 \leq \beta_2$$

$$H_1: \beta_1 > \beta_2$$

$$ROE_{it+1} =$$

$$\begin{aligned} & \alpha + \beta_1 CoreConcerns_{it} + \beta_2 PeripheralConcerns_{it} + \beta_3 Revenue_{it} \\ & + \beta_4 Employees_{it} + \beta_5 \left( \frac{LTDebt}{Assets} \right)_{it} + \beta_6 AdSpend_{it} + \beta_7 ROE_{it} + \gamma_i + \delta_t + \varepsilon \end{aligned}$$

$$ROA_{it+1} =$$

$$\begin{aligned} & \alpha + \beta_1 CoreConcerns_{it} + \beta_2 PeripheralConcerns_{it} + \beta_3 Revenue_{it} \\ & + \beta_4 Employees_{it} + \beta_5 \left( \frac{LTDebt}{Assets} \right)_{it} + \beta_6 AdSpend_{it} + \beta_7 ROA_{it} + \gamma_i + \delta_t + \varepsilon \end{aligned}$$

$$Tobin's Q_{it+1} =$$

$$\begin{aligned} & \alpha + \beta_1 CoreConcerns_{it} + \beta_2 PeripheralConcerns_{it} + \beta_3 Revenue_{it} \\ & + \beta_4 Employees_{it} + \beta_5 \left( \frac{LTDebt}{Assets} \right)_{it} + \beta_6 AdSpend_{it} + \beta_7 Tobin's Q_{it} + \gamma_i + \delta_t \\ & + \varepsilon \end{aligned}$$

- **Core Concerns** – The total number of core concerns attributed to an organization based on the KLD Index and Core/Peripheral distinction explained in Appendix 1.
- **Peripheral Concerns** – The total number of core concerns attributed to an organization based on the KLD Index and Core/Peripheral distinction explained in Appendix 1.



If my hypothesis is true, results will show that  $\beta_1$  is significantly less than  $\beta_2$  which would mean that partaking in concerning behavior that is core to an organization is more negatively correlated with financial performance than peripheral concerning behavior.

### **3.5 Strengths, Assumptions, and Limitations**

The greatest strengths of this study are that it utilizes financial and social information that is widely accepted as reliable data, and that there is definitely a gap in the literature to be filled by it. Another strength is the use of statistical analysis for the hypotheses. Quantitative results require less interpretation and potential bias from the researcher than qualitative, which will improve accuracy.

Regarding limitations, since the idea of core and peripheral activities is relatively new, there is no commonly agreed upon definition of the terms and the classification of social activities can have a significant impact on the outcome of the regression analysis and t-tests. Another limitation is the factor of time. It is important to acknowledge time to see if financial performance is consistent over years while maintaining a social initiative, but there will be inconsistencies in how long each data point, or firm, has had a social initiative in place. Adjusting for that will likely be a limitation of the outcome. Additionally, with regression analysis it is important to understand results will indicate a correlation, not a causation. This is a limitation to keep in mind as results are analyzed – the data cannot determine whether social initiative type causes financial performance changes, it can only describe a correlation.

## **4. Results**

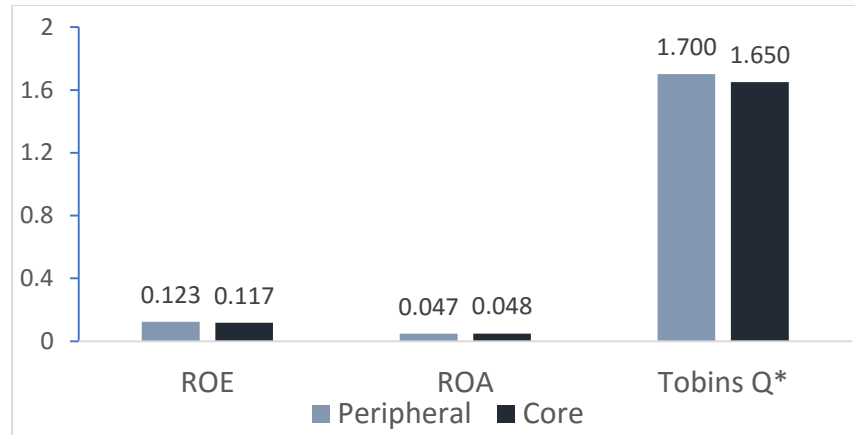
As described in the methodology section, a two-sample test and panel regressions were run for data spanning from 2010 to 2015. The results of this hypothesis testing show that both hypotheses are partially supported. Core initiatives were found to have a positive correlation with firm performance when measured between firms, peripheral initiatives had a negative correlation with financial performance when measured within a firm, and concerning peripheral behavior had a larger negative correlation with financial performance than concerning core behavior.

### **4.1 Hypothesis 1 Results**

Hypothesis one was evaluated using a two-sample t-test and panel regression, and seeks to determine whether organizations participating in more core initiatives have higher financial performance. The three t-tests were tested at a 0.05 significance level. Any results that have a one-tail p-value less than this significance level rejects the null hypothesis and proves that the mean financial performance value of core organizations is significantly different (larger or smaller, depending on the results) from that of peripheral organizations. The results of the two-sample t-test as shown in Figure 1 do not reject the null hypothesis I put forth regarding the three metrics of financial performance. This quick look at the two samples is very simplistic and does not consider correlation or other factors that might affect a firm's financial metrics. When comparing means for ROA and ROE, there is no significant difference between the two for core and peripheral organizations. Looking at the results for Tobin's Q, the mean values are significantly different but not in the direction hypothesized. Hypothesis one states that financial metrics for core organizations will be higher, but the Tobin's Q t-test shows the mean financial performance of peripheral organizations as higher and this test is statistically significant at a significance level of 0.05. When analyzing the independent variables in a panel regression, the

difference in relationship between them and financial performance becomes clear and shows how a simple t-test of means not sufficient to understand the relationship between financial performance and core and peripheral social initiatives – a panel regression is necessary.

*Figure 1: Mean Financial Metrics for Two-sample t-test*



*Note: Significance at p-value of 0.05 is denoted with \**

*Table 1: Two-sample t-test results for Hypothesis 1*

Two-Sample t-test	ROE	ROA	Tobin's Q
	<i>Std. Dev.</i>	<i>Std. Dev.</i>	<i>Std. Dev.</i>
<b>Core</b>	0.150	0.055	0.924
<b>Peripheral</b>	0.151	0.055	0.902
<b>P-Value</b>	-.128	0.332	0.048

*Note: All p-values are one-tail*

#### 4.1.1 Fixed Effects Regression for Strengths

Looking at fixed effect results (Table 2), there was no significant correlation found between the number of core initiatives present and financial performance for any of the three

metrics. This means that within the same firm, an increase or decrease in core strengths does not have a significant impact on ROE, ROA, or Tobin's Q over a 5-year timeframe.

Alternatively, the number of peripheral strengths present in an organization showed statistically significant results at the 0.10 significance level for ROE, and 0.05 level for ROA and Tobin's Q. The correlation coefficient for each metric was negative, meaning within a firm an increase in peripheral activities is correlated with a decrease in performance on financial metrics over a 5-year timeframe. In an economic perspective, Appendix 2 shows the change in standard deviation of the dependent variables as a result of an increase of one standard deviation in the independent variables. This information does not support my initial hypothesis and does not reject the null hypothesis put forth in Section 3.4.

*Table 2: Fixed Effects Regression Results for Strengths*

Variable	ROE			ROA			Tobin's Q		
	Coefficients	Standard Error	P-value	Coefficients	Standard Error	P-value	Coefficients	Standard Error	P-value
Core Strengths	-0.001	0.004	0.834	0.000	0.001	0.699	-0.010	0.007	0.146
Peripheral Strengths	-0.007	0.004	0.074	-0.002	0.001	0.023	-0.017	0.007	0.024
LTDebt/Assets	-0.009	0.055	0.867	-0.012	0.011	0.296	-0.232	0.103	0.024
AdSpend	-0.010	0.054	0.853	-0.023	0.011	0.035	-0.151	0.102	0.140
Employees	-0.001	0.001	0.178	0.000	0.000	0.248	0.001	0.002	0.723
Revenue	0.000	0.000	0.619	0.000	0.000	0.360	0.000	0.000	0.666

*Note: All p-values are one-tail; no pairs of core and peripheral concern coefficients are significantly different from each other.*

#### 4.1.2 Between Effects Regression for Strengths

Regression results comparing the effect of social initiatives on financial performance between different firms showed no significant correlation between peripheral strengths and overall financial performance (Table 3). Correlation coefficients were found to be insignificant for ROE and ROA, but the coefficient for Tobin's Q was significant at a 0.10 significance level and was a negative value. The correlation between core strengths and financial performance became clearer in the between effects regression. For each of the

dependent variables, there was a statistically significant positive correlation coefficient for core strengths. Refer to Appendix 2 for detail on the change in standard deviation of the dependent variables as a result of an increase of one standard deviation in the independent variables. This means that between organizations, an increase in core strengths for an organization's social initiatives is positively correlated with financial performance metrics of ROE, ROA, and Tobin's Q which supports my hypothesis.

*Table 3: Between Effects Regression Results for Strengths*

Variable	ROE			ROA			Tobin's Q		
	Coefficients	Standard Error	P-value	Coefficients	Standard Error	P-value	Coefficients	Standard Error	P-value
Core Strengths	0.028	0.008	0.001	0.015	0.003	0.000	0.060	0.034	0.072
Peripheral Strengths	0.006	0.010	0.561	-0.003	0.004	0.450	-0.075	0.042	0.070
LTDebt/Assets	0.092	0.034	0.007	-0.008	0.012	0.481	-0.717	0.135	0.000
AdSpend	-0.234	0.077	0.002	-0.055	0.027	0.042	0.590	0.305	0.053
Employees	0.000	0.000	0.197	0.000	0.000	0.285	0.001	0.001	0.028
Revenue	0.000	0.000	0.868	0.000	0.000	0.976	0.000	0.000	0.002

*Note:* All p-values are one-tail; bolded values represent pairs of coefficients that are significantly different at a p-value of 0.05.

## 4.2 Hypothesis 2 Results

### 4.2.1 Fixed Effects Regression for Concerns

The fixed effects regression analysis for core and peripheral behavior that was deemed concerning did not show a significant correlation between peripheral concerns and financial performance (Table 4). Correlation coefficients for ROA and Tobin's Q were insignificant at the 0.01 significance level, but there was a small, significant correlation between peripheral concerns and ROE. Appendix 2 translates these correlations into the change in standard deviation of the dependent variables as a result of an increase of one standard deviation in the independent variables. Core concerns also showed no significant correlation with financial performance within firms. This means that the presence of core or peripheral concerns within

a firm shows no significant influence on financial performance of the firm and the null hypothesis could not be rejected.

*Table 4: Fixed Effects Regression Results for Concerns*

Variable	ROE			ROA			Tobin's Q		
	Coefficients	Standard Error	P-value	Coefficients	Standard Error	P-value	Coefficients	Standard Error	P-value
Core Concerns	0.002	0.006	0.772	0.001	0.001	0.234	0.000	0.011	0.986
Peripheral Concerns	0.016	0.006	0.014	0.002	0.001	0.232	-0.001	0.012	0.903
LTDebt/Assets	-0.007	0.055	0.897	-0.011	0.011	0.305	-0.230	0.103	0.025
AdSpend	-0.008	0.054	0.877	-0.023	0.011	0.037	-0.150	0.102	0.142
Employees	-0.001	0.001	0.179	0.000	0.000	0.232	0.001	0.002	0.768
Revenue	0.000	0.000	0.571	0.000	0.000	0.327	0.000	0.000	0.662

*Note: All p-values are one-tail; no pairs of core and peripheral concern coefficients are significantly different from each other.*

#### 4.2.2 Between Effects Regression for Concerns

The between effects regression analysis for core and peripheral concerns garnered statistically significant results for both types of concerns. The presence of peripheral concerns showed a negative correlation with ROE and ROA, meaning the more peripheral concerns an organization is partaking in, the lower the organization's ROA and ROE. Conversely, the correlation coefficient for peripheral concerns was positive when Tobin's Q was the dependent variable. Core concerns resulted in a positive correlation coefficient for dependent variables of ROE and ROA, and had no significant correlation with Tobin's Q. These findings generally support my proposed hypothesis that peripheral concerns would have a more negative correlation with financial performance, with the exception of findings for Tobin's Q. Appendix 2 translates these correlations into the change in standard deviation of the dependent variables as a result of an increase of one standard deviation in the independent variables.

Table 5: Between Effects Regression Results for Concerns

Variable	ROE			ROA			Tobin's Q		
	Coefficients	Standard Error	P-value	Coefficients	Standard Error	P-value	Coefficients	Standard Error	P-value
Core Concerns	0.020	0.012	0.108	0.014	0.004	0.001	-0.029	0.049	0.555
Peripheral Concerns	-0.049	0.013	0.000	-0.018	0.005	0.000	0.138	0.053	0.099
LTDebt/Assets	0.094	0.034	0.006	-0.009	0.012	0.471	-0.700	0.136	0.000
AdSpend	-0.236	0.077	0.002	-0.056	0.027	0.037	0.596	0.305	0.051
Employees	0.000	0.000	0.151	0.000	0.000	0.277	0.002	0.001	0.014
Revenue	0.000	0.000	0.196	0.000	0.000	0.684	0.000	0.000	0.001

*Note: All p-values are one-tail; bolded values represent pairs of coefficients that are significantly different at a p-value of 0.05.*

#### 4.2.3 Test for Robustness

To test the robustness of the regression results for core and peripheral strengths and concerns, a panel regression was conducted with all four independent variables. The results of this analysis show that correlation coefficients are similar to the findings stated previously, which means the independent variables are independent of each other and do not have a strong interacting influence that would skew the resulting correlation coefficients of the regression analysis.

Table 6: Fixed Effects Regression Results using all Independent Variables

Variable	ROE			ROA			Tobin's Q		
	Coefficients	Standard Error	P-value	Coefficients	Standard Error	P-value	Coefficients	Standard Error	P-value
Core Strengths	0.000	0.009	0.912	0.000	0.001	0.523	-0.010	0.007	0.151
Peripheral Strengths	-0.006	0.011	0.127	-0.002	0.001	0.048	-0.017	0.008	0.026
Core Concerns	0.001	0.014	0.923	0.001	0.001	0.297	0.001	0.012	0.907
Peripheral Concerns	0.015	0.014	0.020	0.001	0.001	0.330	-0.005	0.012	0.667
LTDebt/Assets	-0.008	0.034	0.887	-0.011	0.011	0.297	-0.232	0.103	0.024
AdSpend	-0.009	0.077	0.874	-0.023	0.011	0.036	-0.151	0.102	0.139
Employees	-0.001	0.001	0.192	0.000	0.000	0.251	0.001	0.002	0.730
Revenue	0.000	0.000	0.573	0.000	0.000	0.328	0.000	0.000	0.661

*Note: All p-values are one-tail*

Table 7: Between Effects Regression Results using all Independent Variables

Variable	ROE			ROA			Tobin's Q		
	Coefficients	Standard Error	P-value	Coefficients	Standard Error	P-value	Coefficients	Standard Error	P-value
Core Strengths	0.025	0.009	0.004	0.012	0.003	0.000	0.085	0.035	0.015
Peripheral Strengths	0.005	0.011	0.627	-0.004	0.004	0.24	-0.058	0.043	0.174
Core Concerns	-0.005	0.014	0.735	0.006	0.005	0.196	-0.062	0.056	0.267
Peripheral Concerns	-0.033	0.014	0.016	-0.013	0.005	0.006	0.163	0.055	0.003
LTDebt/Assets	0.094	0.034	0.006	-0.009	0.012	0.432	-0.709	0.136	0.000
AdSpend	-0.237	0.077	0.002	-0.056	0.027	0.038	0.603	0.305	0.048
Employees	0.000	0.000	0.180	0.000	0.000	0.369	0.002	0.001	0.021
Revenue	0.000	0.000	0.468	0.000	0.000	0.914	0.000	0.000	0.002

*Note: All p-values are one-tail*

### **4.3 Summary**

In conclusion, the results of this study show that hypothesis one was partially supported at significance levels of 0.10, 0.05, or 0.01. The two-sample t-test did not find evidence to support the claim that organizations participating in more core social initiatives have a higher mean financial performance on the metrics of ROE, ROA, and Tobin's Q. Contrastingly, the strengths regression partially supported the hypothesis because it was found that core strengths have a positive correlation with financial performance metrics between firms while peripheral strengths did not have a statistically significant correlation for two of the three metrics and had a negative correlation with Tobin's Q. Hypothesis one was also partially supported by examining correlations within firms which showed no significant effect of core strengths, and a significant negative correlation between peripheral strengths and financial performance.

Hypothesis two was partially supported as well. Regressions with concerns as the independent variables showed that peripheral concerns generally have a negative correlation with financial performance whereas core concerns generally have a positive correlation, with the exception of Tobin's Q.

## **5. Discussion**

This study was intended to fill a gap in the literature around specific types of social initiatives that result in larger financial benefit. Very little literature exists classifying social initiatives as core or peripheral to an organization's day-to-day activities, or how the specific types of initiatives influence financial performance. This study found that overall, it seems that firms should focus on reducing concerns in peripheral areas but work on going exceeding the average in core areas. Additionally, these findings suggest that the differences in financial performance in



relationship to social initiatives are occurring between firms. Within firms, increasing peripheral initiatives was correlated to a decrease in financial performance. Between firms an increase in core initiatives was associated with an increase in financial performance. This means that firms can gain benefits from social initiatives, but with core instead of peripheral. With respect to concerning social behavior, this study suggests that firms should focus on reducing concerns in peripheral areas by presenting a negative relationship between peripheral concerns and financial performance when looking between firms. When evaluating concerning behavior, organizations should be cautious of peripheral activities. This discussion of results will highlight what contributions to the literature resulted from this study.

In the two-sample t-test it was found that there was no significant difference between the average ROE or ROA of core and peripheral organizations, but peripheral organizations averaged a significantly higher Tobin's Q. These findings are counter to my initial assumptions which may be for a number of reasons. First, this method does not take into account the magnitude of how core or peripheral an organization is. For example, organizations classified as peripheral could have had 10 core performance indicators and 11 peripheral performance indicators. Organizations like this could be reaping benefits from the large number of core and peripheral initiatives but be counted as peripheral by a very small margin. Another possibility relates to time. Since the concept of core social initiatives is newer and strategies to use it effectively have not existed for long, it is possible that organizations using core activities are benefitting but have not had enough time see significant financial rewards yet.

Because of these possibilities, the methodology used in hypothesis one involving a clear designation of organizations as core or peripheral, and sample means, left room for additional exploration. The regression analysis conducted for hypotheses one and two considers magnitude

of values in the correlation and assesses correlation to increased financial performance as opposed to absolute financial performance as measured in the two-sample t-test.

The panel regressions run for core and peripheral strengths suggest that within the same firm over a period of five years, an increase or decrease in core initiatives does not have a significant influence on financial performance, but an increase in peripheral activities has a negative influence on financial performance. The negative correlation presented in this analysis was unexpected. It is possible that when organizations are struggling financially, they choose to partake in less strategically taxing peripheral initiatives instead of devoting energy and resources to core initiatives that might take more time to reap financial benefits. This behavior could contribute to the negative correlation found, but this is an unanticipated result that could be further explored in another study. The between effects regression shows that between firms, an increase in core initiatives increases the likelihood of higher financial performance.

The fixed effects regression for concerns analysis suggests that within the same firm, variation in core and peripheral concerns do not have a large effect on firm performance. Though I did not expect this result, it could be a consequence of pre-existing brand reputations. For instance, a company like General Mills has spent many years building up a brand reputation in consumers' minds. It is possible that variations in concerns from 2010-2015 do not have a significant effect on financial performance because reputations have already been established and would require significant changes to affect it.

The between effects regression resulted in a negative correlation between peripheral concerns and ROE and ROA, but a positive correlation with Tobin's Q. For core concerns, a positive correlation was found with ROE and ROA, and there was no significant correlation with Tobin's Q. Additionally, the data suggests that a higher number of core concerns generally results in

higher financial performance while a higher number of peripheral concerns generally results in lower financial performance. This means that with regard to concerning behavior, organizations should focus on minimizing peripheral concerns.

The positive correlation between peripheral concerns and Tobin's Q, and the positive correlation between core concerns and ROE and ROA were unanticipated results that suggest partaking in concerning behavior can increase financial performance. There is a chance that this could be a short-term increase in performance that would be eliminated through a larger sample of years. This positive correlation is very curious and should be examined further in future studies.

## **6. Conclusion**

This study aimed to understand the relationship between types of social initiatives (core or peripheral to an organization's functioning) and financial performance. Though my hypotheses were only partially supported, the findings still offer a valuable contribution to the existing literature. The findings show positive correlations between partaking in core social initiatives and financial performance when looking between firms. Within a firm, the findings suggest partaking in peripheral initiatives can have a negative impact on financial performance. With regard to concerns, reducing peripheral concerns should be more of a focus for firms because they were shown to have a significant negative impact on financial performance between firms. Between firm findings also suggest a potential positive correlation between core concerns and financial performance which is counter to common sense and can prompt further research in the literature. Within a firm, it was found that the amount of concerning behavior an organization

partakes in does not significantly correlate to financial performance. These findings are some of the first that classify social initiatives by their relation to an organization's day-to-day activities.

Caution should be used in generalizing these findings to all types of core and peripheral initiatives. Social initiatives are very rarely classified by relation to an organization's operating activities and there are many other methods of conducting this classification. Additionally, this study is focused on domestic firms. Applying these findings internationally could be problematic because cultural differences can also play a role in how effective social initiatives are in impacting firm performance. Lastly, some results of this study are unexpected – the positive correlation between core concerns and financial performance – and require further research to understand fully.

Even with the above cautions, this study takes the beginning steps toward understanding the impact of core and peripheral initiatives on financial performance which is especially relevant as theories such as Porter and Kramer's Creating Shared Value gain popularity. Examining the benefits of types of initiatives as they relate to an organization's activities can be beneficial to business strategy as firms consider how to build social involvement into their business models, and the results of this study are a step in the right direction to educate these strategic decisions.

## Appendix 1: KLD Performance Indicator Classification

### *Core Performance Indicators*

- **Environment** – Performance indicators under this category assess ways in which organizations develop internal programs with environmentally conscious themes, limits waste in packaging, and builds waste reduction into its processes. These behaviors affect activities core to an organization’s day-to-day activities and are therefore classified as core performance indicators.
- **Employee Relations** – Performance indicators under this category define ways in which supply chain and manufacturing are developed to maintain employee health and safety. These activities directly relate to the creation of an organization’s product or service because of their impact on employees that provide the product/service. Therefore, these performance indicators are classified as core.
- **Product** – Performance indicators under this category define ways in which product offerings are created to be safe for consumers and are able to reach underserved populations. These activities directly relate to the product an organization distributes which are core to an organization’s functioning. These indicators are therefore classified as core.

### *Peripheral Performance Indicators*

- **Community** – Performance indicators under this category define ways in which organizations engage with the local community. Engaging with the local community is an action ancillary and unrelated to day-to-day operating activities. Because of this, these indicators are classified as peripheral.

- **Human Rights** – Performance indicators under this category define ways in which organizations have established relations with indigenous peoples near its operations or undertaken exceptional human rights policies. These activities are external to ordinary operating activities, so these indicators are classified as peripheral.
- **Governance** – Performance indicators under this category define ways in which an organization avoids corruption, political instability, and financial instability. These activities, though important to an organization's functioning, are separated from its daily operating activities. These indicators are therefore classified as peripheral.
- **Diversity** – Performance indicators under this category assess the diversity of organizations' boards of directors, and any past controversies related to workforce diversity. The board of directors is peripheral to an organization's everyday activities, and its controversies are external to core activities. For these reasons, these indicators are classified as peripheral.

**Appendix 2: Economic impact tables showing change in standard deviation of the dependent variables as a result of an increase of one standard deviation in the independent variables**

***Strengths***

	Fixed Effects		Between Effects	
	<i>Core</i>	<i>Peripheral</i>	<i>Core</i>	<i>Peripheral</i>
<b>ROE</b>	0.134	0.024*	-0.004***	-0.028
<b>ROA</b>	0.233	-0.037**	-0.004***	-0.024
<b>Tobin's Q</b>	0.073	-0.076**	-0.012*	-0.017*

*Note: significance levels indicated by the following notation:  $p \leq 0.10^*$ ,  $p \leq 0.05^{**}$ ,  $p \leq 0.01^{***}$*

***Concerns***

	Fixed Effects		Between Effects	
	<i>Core</i>	<i>Peripheral</i>	<i>Core</i>	<i>Peripheral</i>
<b>ROE</b>	0.057	-0.147**	0.005*	0.047***
<b>ROA</b>	0.131	-0.184	0.014***	0.015***
<b>Tobin's Q</b>	-0.021	0.105	0.000**	-0.001*

*Note: significance levels indicated by the following notation:  $p \leq 0.10^*$ ,  $p \leq 0.05^{**}$ ,  $p \leq 0.01^{***}$*

## References

- Barnett, M. (2006). Beyond Dichotomy : The Curvilinear Relationship between Social Responsibility and Financial Performance. *Strategic Management Journal*.  
<http://doi.org/10.1002/smj.557>
- Porter, M. E., & Kramer, M. R. (2011). Creating Shared Value. *Harvard Business Review*, 89(1/2), 62-77.
- Brammer, S., & Millington, A. (2008). Does it pay to be different? An analysis of the relationship between corporate social and financial performance. *Strategic Management Journal*. <http://doi.org/10.1002/smj.714>
- CAF. (2015). Caf World Giving Index 2015, (268369), 1–44.
- Flammer, C. (2015). Does Corporate Social Responsibility Lead to Superior Financial Performance? A Regression Discontinuity Approach. *Management Science*. 61(11):2549-2568. <http://dx.doi.org/10.1287/mnsc.2014.2038>
- Friedman, M. (1970). The Social Responsibility of Business is to Increase its Profits. *New York Times Magazine*.



Hart, S. L. (1995). A Natural-Resource-Based View of the Firm Author. *The Academy of Management Review*. 20(4):986-1014. <http://www.jstor.org.ezp1.lib.umn.edu/stable/258963>

Scholtens, B. (2008). A note on the interaction between corporate social responsibility and financial performance. *Ecological Economics*, 68(1-2), 46-55.  
<http://doi.org/10.1016/j.ecolecon.2008.01.024>

Sasse, C. M., & Trahan, R. T. (2007). Rethinking the new corporate philanthropy. *Business Horizons*, 50(1), 29–38. <http://doi.org/10.1016/j.bushor.2006.05.002>

Sledge, S. (2015). An Examination of Corporate Social Responsibility Practices and Firm Performance in U.S. Corporations, *14*(2), 171–185.